

Claims

1. A distributor module for valve clusters (11), which
10 possess at least one valve unit (13) with a principal valve
(15) supplied by way of at least one supply duct (17) with
pressure medium, and for the control thereof at least one
pilot control valve (16) supplied with pilot control
pressure medium by way of at least one pilot control supply
15 duct (18a and 18b), said distributor module comprising:
- 1.1 at least one supply duct section (22) which is
able to be coupled with at least one supply
duct (17) of the valve cluster and at least two
pilot supply duct sections (23a and 23b), which
20 are able to be coupled with at least two pilot
supply ducts (18a and 18b) of the valve cluster
(11),
- 1.2 an interface (24) for the connection of the duct
sections (22, 23a and 23b) with each other,
- 25 1.3 said interface (24) having a control element (25)
associated with it, said control element being
so designed that different switching conditions
may be set, in which the supply duct section
(22) and the pilot supply duct sections (23a

and 23b) are put differently in circuit,
1.4 of which at least in the case of a first switching
condition the pilot supply duct sections (23a
and 23b) are connected together and
5 simultaneously are separated from the supply
duct section (22) and
1.5 at least in the case of a second switching
condition all duct sections (22, 23a and 23b)
are connected with one another.

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2. The distributor module as set forth in claim 1,
characterized by one supply duct section (22) which is
coupled with the supply duct (17) of the valve cluster (11)
and by two pilot control ducts (23a and 23b), which may each
15 be coupled with a pilot control duct (18a and 18b) of the
valve cluster (11).

3. The distributor module as set forth in claim 1 or in
claim 2, characterized in that a third switching condition
20 may be set, in which all duct sections (22, 23a and 23b) are
separated from each other.

4. The distributor module as set forth in any one of
the preceding claims, characterized in that a fourth
25 valve cluster may be set, in which the supply section (22)
is connected with at least one of the pilot supply duct
sections (23a and 23b) and simultaneously is separated from
at least other pilot supply duct section (23a and 23b).

5. The distributor module as set forth in any one of the preceding claims, characterized by a mounting area (26) for mounting on a valve cluster (11) and an oppositely placed operating face (40) for the operation of the control element (25), preferably the duct sections (22 23a and 23b) at least adjacent to the mounting area (26) in the mounted state of the distributor module (1) being aligned with the respective ducts (17 18a and 18b) in the valve cluster (11) and the connection with the interface (24) being constituted in each case by several duct section flow redirecting portions.

6. The distributor module as set forth in any one of the preceding claims, characterized in that the interface (24) is divided up into at least three more particularly contiguous interface sectors (27a, 27b and 27c) into which in each case at least one and more particularly a single duct section (22, 23a and 23b) opens, and by means of the control element (25) flow bridges (29) conducting the pressure medium between the interface sectors (27a, 27b and 27c) may be opened and closed.

7. The distributor module as set forth in claim 6, characterized in that the control element (25) arranged on the interface (24) is movable in relation to it and has at least three more particularly contiguous control sectors (30), the control sectors (30) being able to be so coupled with the interface sectors (27a, 27b and 27c) that dependent on the position of the control sectors (30) in relation to

the interface sector (27a, 27b and 27c) pressure medium may be transferred by way of the respective flow bridge (29) to respectively adjacent interface sectors (27a, 27b and 27c).

5 8. The distributor module as set forth in claim 7, characterized in that the individual interface sectors (27a, 27b and 27c) are separated from one another by transverse interface partitions (33) and in the case of an aligned state of a transverse control partition (33) with a
10 transverse interface partition (28) the associated flow bridge (29) is closed.

 9. The distributor module as set forth in claim 7 or claim 8, characterized in that the control element (25) is
15 rotatably supported on the interface (24) and is more particularly in the form of a cap-like rotary switch, the position of the control sectors (30) in relation to the non-rotary interface sectors (27a, 27b and 27c) may be changed by rotation of the control element (25) in relation to the
20 interface 24.

 10. The distributor module as set forth in any one of the claims 7 through 9, characterized in that the interface sectors (27a, 27b and 27c) and preferably the control
25 sectors (30) have the cross section of a circular segment and more particularly in the fitted together condition constitute a circular face.

 11. The distributor module as set forth in any one of

the preceding claims, characterized in that between the control element (25) unit interface (24) a seal is arranged for fluid-tight sealing of respectively adjacent interface sectors (27a, 27b and 27c) with the flow bridge (29) closed
5 in each case, which preferably is adapted to the shape of the control sectors (30) and is connected with the control element (25) in a non-rotary manner.

12. The distributor module as set forth in any one of
10 the preceding claims, characterized in that the control element (25) possesses detent means for snapping into a switching position corresponding to a desired switching condition, detent spurs (34) being preferably on the control element (25), which may snap into detent grooves (35) on the
15 interface (24).

13. The distributor module as set forth in any one of the preceding claims, characterized in that it comprises externally visible switching insignia or symbols (36), more particularly numbers, each thereof corresponding to a
20 predetermined switching condition and more particularly the switching symbols (36) are arranged on the operating side (40) of the distributor module (12) adjacent to the interface (24), more particularly adjacent to the periphery
25 of the preferably circularly designed control element (25).

14. The distributor module as set forth in claim 13, characterized in that element (25) possesses at least one actuating means (37) for more particularly manual switching

over between the different switching conditions, such
element more particularly cooperating with one of the
switching symbols (36) simultaneously indicates the
currently selected switching condition as an indicating
5 element.

15. The distributor module as set forth in any one of
the preceding claims, characterized in that it is designed
in the form of a valve unit (13) with one principal valve
10 (15) supplied with pressure medium by way of at least one
supply duct (17) and at least one pilot control valve (16)
serve for the control of same and supplied by way of at
least one pilot control supply duct (18a and 18b) with pilot
control pressure medium.

15 16. A valve cluster comprising at least one valve unit,
which has a principal valve (15) supplied by way of at least
one supply duct (17) with pressure medium, and by way of at
least one pilot supply duct (18a and 18b) with pilot
20 pressure medium, characterized by at least one distributor
module (12) as set forth in one of the preceding claims.